

CLAIMS:

1. A camera, comprising:

a housing;

a lens mounted in the housing for transmitting therethrough light from objects and scenes of interest;

an image sensor mounted in the housing for receiving the light transmitted through the lens and generating output signals representative of an image of an object or a scene of interest;

a manually actuable ON/OFF control mounted in the housing;

a processing circuit mounted in the housing and connected to the image sensor for processing the output signals from the image sensor in response to user actuation of the ON/OFF control;

a memory mounted in the housing; and

a control circuit mounted in the housing and connected to the processing circuit including means for selectively generating a first sequence of high resolution still image files or a second sequence of low resolution still image files and storing the image files in the memory in accordance with a predetermined still image data compression standard, the control circuit further including firmware means for retrieving the low resolution image files from the memory, converting the low resolution image files to a motion video sequence in accordance with a predetermined motion image data compression standard, and storing the motion video sequence.

2. A camera according to Claim 1 wherein the predetermined still image data compression standard is JPEG.

3. A camera according to Claim 1 wherein the predetermined motion image data
2 compression standard is MPEG.

4. A camera according to Claim 1 wherein the control circuit includes a hardware
2 JPEG file format conversion component.

5. A camera according to Claim 1 wherein the control circuit includes an EXIF file
2 format conversion component for embedding JPEG files outputted by the JPEG file format
conversion component into a plurality of corresponding EXIF files.

6. A camera according to Claim 1 the sequence of low resolution images is taken
2 at a rate sufficient to ensure substantially non-jerky motion when the motion video sequence
is replayed.

7. A camera according to Claim 6 wherein the rate is approximately thirty frames
2 per second.

8. A camera according to Claim 1 wherein the control circuit generates the first
2 sequence of high resolution still image files in response to each momentary actuation of the
ON/OFF control and generates the second sequence of low resolution still image files in
4 response to the ON/OFF control being actuated and held in an ON condition for a
predetermined duration longer than the momentary actuation.

9. A camera according to Claim 1 wherein the camera further includes a display,
means connected between the display and the control circuit for driving the display, and control
means for permitting the user to selectively observe on the display selected ones of the high
resolution still images or the motion video sequence.

10. A camera according to Claim 1 and further comprising means for transmitting
the high resolution still image files or the motion video sequence to a host.

11. A method of selectively generating still or motion images with a digital camera,
comprising the steps of:

selectively generating a first sequence of high resolution still image files or a second
sequence of low resolution still image files and storing the image files in the memory in
accordance with a predetermined still image data compression standard;

selectively retrieving the low resolution image files from the memory;

converting the low resolution image files to a motion video sequence in accordance with
a predetermined motion image data compression standard, the conversion being performed with
firmware; and

storing the motion video sequence.

12. The method of Claim 11 wherein the predetermined still image data compression
standard is JPEG and a plurality of JPEG files are generated.

13. The method of Claim 11 wherein the predetermined motion image data
compression standard is MPEG.

2 14. The method of Claim 11 wherein the still image data compression is performed with a hardware JPEG file conversion component.

2 15. The method of Claim 12 wherein the JPEG files are embedded in a plurality of corresponding EXIF files.

2 16. The method of Claim 11 wherein the sequence of low resolution images is taken at a rate sufficient to ensure substantially non-jerky motion when the motion video sequence is replayed.

2 17. The method of Claim 16 wherein the rate is approximately thirty frames per second.

2 18. The method of Claim 11 wherein the first sequence of high resolution still image files is generated in response to each momentary actuation of an ON/OFF control and the second sequence of low resolution still image files is generated in response to the ON/OFF control being actuated and held in an ON condition for a predetermined duration longer than the momentary actuation.

2 19. The method of Claim 11 and further comprising the step of selectively displaying selected ones of the high resolution still images or the motion video sequence.

20. A digital still camera, comprising:

a housing;

a lens mounted in the housing for transmitting therethrough light from objects and

scenes of interest;

an image sensor mounted in the housing for receiving the light transmitted through the lens and generating output signals representative of an image of an object or a scene of interest;

a manually actuable ON/OFF control mounted in the housing;

a processing circuit mounted in the housing and connected to the image sensor for processing the output signals from the image sensor in response to user actuation of the

ON/OFF control;

a memory mounted in the housing;

a display mounted in the housing; and

a control circuit mounted in the housing and connected to the processing circuit including hardware means for selectively generating a first sequence of high resolution still image files or a second sequence of low resolution still image files and storing the image files in the memory in accordance with a JPEG still image data compression standard to create a plurality of JPEG files, means for embedding JPEG files into a plurality of corresponding EXIF files, means for storing the EXIF files in a memory, firmware means for retrieving the EXIF files corresponding to the low resolution image files from the memory and for converting the low resolution image EXIF files to a motion video sequence in accordance with an MPEG motion image data compression standard, means for storing the motion video sequence in the memory, means connected between the display and the control circuit for driving the display, and means for causing the control means to selectively display selected ones of the high resolution still images or the motion video sequence.